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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,648	12/16/2005	Katsuhiko Yano	09852/0202335-US0	9265
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DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770			EXAMINER	
			FOGARTY, CAITLIN ANNE	
			ART UNIT	PAPER NUMBER
			1793	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/521,648

**Applicant(s)**

YANO ET AL.

**Examiner**

CAITLIN FOGARTY

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)  
Paper No(s)/Mail Date 1/13/2005, 9/28/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1 – 12 are pending and presented for examination.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

3. The information disclosure statements (IDS) were submitted on January 13, 2005 and September 28, 2005. The international search reports listed under Non Patent Literature Documents in the January 13, 2005 IDS and the September 28, 2005 IDS are not proper documents for an IDS and will not be considered. The rest of the submissions are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

### ***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 40a. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or

Art Unit: 1793

"New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 7 recites the limitation "said die" in lines 3 and 5 – 8. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1 – 2 and 8 – 12 are rejected under 35 U.S.C. 102(b) as being anticipated by the English machine translation of Schaidl et al. from the IDS(WO 00/20192).

With respect to instant claims 1, 2, and 8, p. 2 paragraphs 1, 5, 6, and 9 - 12, p. 3 paragraph 1, p. 4 paragraphs 1 - 4 and 10, p. 5 paragraphs 2 and 3, and Fig. 1 and 2 of Schaidl et al. disclose a method and press apparatus for manufacturing shaped bodies by consolidating powdered material. The method comprises filling a material powder in a cavity (15) between an upper punch (17) and a lower punch (19) and pressure molding the material powder filled in the cavity by using the upper punch (17) and lower punch (19). There is a primary drive device for driving either of the punches upwards or downwards so that the upper and lower punches become closer to each other. There is also a secondary driving step for minutely adjusting the top to bottom position of one of the punches with a device for measuring a gap between the upper and lower punches (74) with a control unit (71) for controlling the press until the measured value reaches the target molding thickness.

Regarding instant claims 9 - 12, p. 4 paragraphs 3 and 4, p. 5 paragraphs 2 and 3, and Fig. 1 and 2 of Schaidl et al. teach that one of the upper and lower punches of the powder compacting device is driven by the primary drive device and the secondary drive device. More specifically, Schaidl et al. also discloses that one of the upper and lower punches is driven by a primary drive device and the other is driven by a secondary drive device. Schaidl et al. also teaches that either the upper punch or the lower punch may be driven by a secondary drive device because the drive devices that control the upper and lower punches are both capable of minutely adjusting the top to bottom position of the punches to reach the desired thickness of the product.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 3 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the English machine translation of Schaidl et al. from the IDS (WO 00/20192).

Schaidl et al. is applied to instant claims 1 and 2 as discussed above in the 35 U.S.C. 102 (b) rejection.

With respect to instant claims 3 and 4, Schaidl et al. does not specifically teach that in the punch driving step, either one of the upper or lower punches is driven in the primary driving step and the secondary driving step and the other punch is fixed in the primary driving step and secondary driving step. However, it would have been obvious to one of ordinary skill in the art that the operation of the powder compacting device of Schaidl et al. would be a functional equivalent

of the method step recited in instant claims 3 and 4 because the upper and lower punches of Schaidl et al. perform the same function and achieve the same result as those recited in instant claims 3 and 4. The upper and lower punches of Schaidl et al. are used to compact the powder in the cavity to the desired thickness as discussed above for instant claims 1 and 2.

In regards to instant claims 5 and 6, Schaidl et al. does not specifically disclose that in the punch driving step, either one of said upper and lower punches is fixed in the primary driving step, this punch being driven in the secondary driving step, and the other punch is driven in the secondary driving step, this punch being fixed in the secondary driving step. However, it would have been obvious to one of ordinary skill in the art that the operation of the powder compacting device of Schaidl et al. would be a functional equivalent of the method step recited in instant claims 5 and 6 because the upper and lower punches of Schaidl et al. perform the same function and achieve the same result as those recited in instant claims 5 and 6. The upper and lower punches of Schaidl et al. are used to compact the powder in the cavity to the desired thickness as discussed above for instant claims 1 and 2.

13. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the English machine translation of Schaidl et al. (WO 00/20192) from the IDS in view of the English machine translation of DE 19506636 (DE '636) from the IDS.

Schaidl et al. is applied to instant claim 1 as discussed above in the 35 U.S.C. 102 (b) rejection.

Schaidl et al. differs from instant claim 1 because it does not teach that the filling step is comprised of a forwarding step of moving forward over the cavity a shoe box, which can slide on a top face of the die and has an open bottom face, and a removal step of removing the shoe box from over the cavity. Schaidl et al. also does not teach that midway during the removal step, the lower punch is raised relatively with respect to the die and then part of the material powder that is filled in the cavity is pushed onto the die and wiped away by the shoe box that is being removed. They also do not teach that when the removal step has ended, the relative position of the lower punch with respect to the die is returned to its position prior to the removal step.

DE '636 teaches a mold cavity filling device for the mold table of a press with an upper and lower press stamp ([0001] and [0010]). Paragraph [0010] and Fig. 1 – 4 of DE '636 teach that the method of filling the mold cavity includes a forwarding step of moving forward over the cavity a slidegate valve (6) which can slide on the top face of the table (2) and has an open bottom face and a removal step of removing the slidegate valve from over the cavity. Midway during the removal step, the lower press stamp (7) is raised with respect to the table (2) and part of the material powder that is filled in the cavity is pushed onto the table (2) and the excess is wiped away by the slidegate valve that is being removed as seen in Fig. 3. When the removal step has ended, the relative position of the lower press stamp (7) with respect to the table (2) is returned to its position prior to the removal step as seen in Fig. 4.



It would have been obvious to one of ordinary skill in the art to integrate the filling step and device of DE '636 with the powder compacting method and device of Schaidl et al. in order to ensure a well-defined filling of the cavity in order to achieve an even compaction (see [0003] of DE '636).

### ***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAITLIN FOGARTY whose telephone number is (571)270-3589. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 1793

/Roy King/  
Supervisory Patent Examiner, Art  
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CF